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1

SEQUENCE LISTING

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 Maher, Kaija  
 Kilpatrick, David R.  
 Pallansch, Mark A.

<120> TYPING OF HUMAN NON-POLIO ENTEROVIRUSES

<130> 14114.0353U2

<140> 09/937,862  
 <141> 2001-09-28

<150> PCT/US00/07828  
 <151> 2000-03-24

<150> 60/127,464  
 <151> 1999-03-31

<160> 86

<170> FastSEQ for Windows Version 4.0

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 synthetic construct

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<221> misc\_feature  
 <222> (1)...(18)  
 <223> n = a, t, c or g

09937862 0922001

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ngcnccdgat tgntgsc

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synthetic construct

<221> misc\_feature  
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<223> n = a, t, c or g

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<221> misc\_feature  
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<221> misc\_feature  
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<400> 5  
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<210> 6  
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<221> misc\_feature  
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<223> n = a, t, c or g

<400> 6  
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<210> 7  
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<221> misc\_feature  
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<400> 7  
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<223> n = a, t, c or g

<400> 8  
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<210> 9  
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T03250" 2582550

<213> Artificial Sequence

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<221> misc\_feature

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<223> n = a, t, c or g

<400> 9

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<210> 10

<211> 20

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<223> Description of Artificial Sequence; Note =  
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<221> misc\_feature

<222> (1)...(20)

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<210> 11

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence; Note =  
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<221> misc\_feature

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<223> n = a, t, c or g

<400> 11

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<210> 12

<211> 19

<212> DNA

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0993860-092801

<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> misc\_feature

<222> (1)...(19)

<223> n = a, t, c or g

<400> 12

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<210> 13

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence; Note =  
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<221> misc\_feature

<222> (1)...(20)

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<210> 14

<211> 19

<212> DNA

<213> Artificial Sequence

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<221> misc\_feature

<222> (1)...(19)

<223> n = a, t, c or g

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<210> 15

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

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109260" 29375650

<221> misc\_feature  
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<221> misc\_feature  
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ggnacncayr tnathtggga

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<210> 17  
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<221> misc\_feature  
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<210> 18  
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synthetic construct

T.08260" 298/4550

<221> misc\_feature  
<222> (1)...(20)  
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ggnacncayr tnrtntggga

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<210> 19  
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<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> misc\_feature  
<222> (1)...(20)  
<223> n = a, t, c or g

<400> 19  
acngcngyng aracnggnca

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<210> 20  
<211> 19  
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<220>  
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synthetic construct

<221> misc\_feature  
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<223> n = a, t, c or g

<400> 20  
acngcngtng aracnggng

19

<210> 21  
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<212> DNA  
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synthetic construct

<221> misc\_feature  
<222> (1)...(20)  
<223> n = a, t, c or g

<400> 21  
cargcngcng aracnggngc

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<210> 22  
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<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> misc\_feature  
<222> (1)...(19)  
<223> n = a, t, c or g

<400> 22  
cnccnggngg nayrwacat

19

<210> 23  
<211> 888  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 23  
ggattgggcg attctattga ggctgccatt gacagcatca cacaaaatgc actaaccact 60  
gtacaaaata caacacaatc aggacctact cattcaaaag aagttccagc attaacagca 120  
gtggaaacag gtgctactag tcaagtagaa ccaggtgact tgattgaaac cagacatggt 180  
ataaacatga gacaaagatc tgaagcatct atcgaatctt tctttggccg atccgcatgt 240  
gttgcgatac ttggtttgtc aaacgccaaa ccaactgaca caaacaccaa acaattgttc 300  
aaaacatgga gaatatcata tttagaaaact caccaactca gaagaaaact tgagttcttt 360  
acgtactcaa ggtttgattt ggaaatgacc atagtaatta cagagagggg tttcaatgca 420  
gtcaatgtcc cattgcgcaa ttatgtgtac caaataatgt acgttcccc aggtgctcca 480  
gaaccacaat catgggatga ttacacgtgg caatcttcta ccaacccatc aatattctac 540  
accactggaa atgctcctcc cagagtgtca attccatttg ttggaatagg gtctgcatat 600  
tcacactttt atgatggttt ctcacagatt cctcttgact caatcagtgc tggagcaagt 660  
aataagtatg gttacacttc aatcaatgac tttggtaccc tggcaattag aatagtaaat 720  
gaatatgacc cagtgcaagt ggatgcaaag gcccgagtgt atattaaacc caaacatggt 780  
cgcatgtggt gccccagacc accacgggcc atgccttaca agaatagcac agtggatttc 840  
gacccatcag caactgtaat gacccaagtc gcagacatca ggacgtat 888

<210> 24  
<211> 882  
<212> DNA  
<213> Artificial Sequence

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&lt;220&gt;

<223> Description of Artificial Sequence; Note =  
synthetic construct

&lt;400&gt; 24

ggagatccag	tggaagactt	aatcgccaat	acagttgcta	ggactctaga	gagaataacc	60
tctccaactc	ataatacaac	ggcaggcaac	accaccgtta	gcgagcacag	catcggtacc	120
ggttcagtg	ctgcgttgca	agctgctgag	actggggcct	cgtctaacac	cacagatgag	180
agtatgatag	aaacacgggtg	tgttgtcaat	aggaatggag	tgattgagac	tagcatcaac	240
catttcttct	cccagagcggg	gcttgtggga	gtgctgaaca	tacttgatgg	aggcacctca	300
aaaggctttg	aagtttgga	tatagacatc	atgggctttg	ttcagcttcg	cagaaagcta	360
gagatgttca	cctacatgcg	gttcaacgct	gaattcacct	ttgtcgcgac	tttgagtgc	420
ggaacaactc	cccatataat	gttgcaatac	atgtatgtgc	cccctggagc	tcccaaacct	480
caggaaagag	attcattcca	atggcagact	gcaaccaacc	catccgtgtt	tgcgaaaatg	540
agtgaccctc	ctccgcaagt	ttcagtacct	ttcatgtctc	ctgctagcgc	ctaccagtgg	600
ttttatgatg	ggtacccaac	atttgatgat	agaccacaga	cctctaatacg	tccctacgga	660
caatgcccc	ataacatgtt	gggcacattc	gcggtgcgca	ttgttagcaa	gacgcctgcg	720
gagagagact	tgcgcgtccg	tgtttacatg	aaactgaagc	atgtgcgagc	atgggtaccg	780
cgaccataa	ggtcacagcc	ttacgtcttg	aagaactacc	ccaactatga	tggaacccaa	840
atcgtgcccc	gtgccaaga	tcgagaagac	ataaagaaca	ca		882

&lt;210&gt; 25

&lt;211&gt; 915

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence; Note =  
synthetic construct

&lt;400&gt; 25

ggtgatgcaa	tcgctgatgc	tatacaaaac	acagttacat	ctactataca	gagagtcaca	60
accaacactg	ttgggcaaga	tgcaacagct	gctaacacag	cacccagctc	tcatagtttg	120
aacactggcc	tagtccccgc	gcttcaagct	gctgagacag	gagcttcac	cacagccacg	180
gatgggaatt	tgattgagac	tagatgtgtt	gtaaactcca	atggtacacg	tgaaacccac	240
attgagcatt	tcttctctag	gtcagggctg	gtgggagtta	tggaggtaga	tgatacgggt	300
actagtggca	agggattctc	aaactgggac	attgacatca	tggcgtttgt	gcaactgcgc	360
cgtaaactcg	aggcatttac	atataatgcg	ttcgacgcag	agtttacctt	tgtcaccaat	420
ttggagaacg	ggctcacgaa	taatagtgtg	atacagtaca	tgtatgtacc	acctggagcg	480
cctaaacccg	atgcccggga	atcattccag	tggcaaaactg	caaccaatcc	gtcagtcctt	540
caaaaaatgg	acagtccgcg	acctcaagtt	tcagtaccct	tcatgtcacc	agccagtgcc	600
tatcaatggt	tctatgacgg	ttaccccacc	tttggggccc	actcggagac	atctaatacta	660
tcttacgggc	aatgtcccaa	taatatgctg	ggaacattct	cggccagggt	tgtagcaag	720
caaatcacca	atcagaaatt	ccagatccgt	atctatctac	ggctgaagag	ggtgagggcg	780
tggatcccca	gacctttgag	atcgcagccg	tacatttaca	gaaactaccc	cacctatggt	840
actaccatcc	aatacctggc	caaagatagg	cgcaagatca	ctgaaactga	ttataatgct	900
gaacagcgca	cgcat					915

T09260" 2982E660

<210> 26  
 <211> 885  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

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 agtggaccaa ttcagccagt gacagcggcc aacacctctc ccagttcaca tcggcttggg 120  
 acggggcaag tgccagcttt gcaagcagca gaaacgggag ccacctcgaa tgcgaccgac 180  
 gagagtttga ttgaaaccag gtgtgtgggc aacagacatg gagtcattga aactagcatt 240  
 gaacacttct tttcacgctc aggcctggca ggaattttga taattgagga ctccgggtact 300  
 tccacgaaag gctacgccac ttgggaaatc gatgttatgg gatttgtcca gctgaggcgt 360  
 aaactagaga tgttcacata catgcgattt gatgcagagt tcacctttat cacagcagaa 420  
 aggaatggca acaccagccc aatacccatc cagtacatgt atgtcccacc cggagcccca 480  
 gtccctactg gtagggagac attccaatgg caaacagcga ccaatccatc cgtgatctca 540  
 aagatgactg atccaccagc ccagggtgtc gtaccattta tgagcccagc cagtacttat 600  
 caatggttct acgatggcta cccacgttc ggagaagttc cagtgactac gaacttgaac 660  
 tatggacagt gcccaaacia caaaatgggc actttctgca tccgcatggg ctcagggtga 720  
 tctacaggca aggacgtcac tgtgcgcatt ttcattgaagt tgaagcatgt gcgcgcctgg 780  
 gtgccaaggc ccatcaggag ccagccttac ttgttaaaga attatcccaa ctttgacaag 840  
 tcaaattattg tagacgcac atcgaacagg acatatacca ccact 885

<210> 27  
 <211> 915  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

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 aatgacccca tttcaaatgc aatagaaaat gctgtgagca cactcgctga caccacgata 60  
 tcacgtgtta cagcggccaa cactgctgct agtccccatt cccttggtac tggacgcgtg 120  
 ccggcggtgc aggctgcgga gacaggggca agttccaacg ctacgcatga gaacctgatt 180  
 gaaactcggt gtgtgatgaa tagaaatgga gttaacgaag caagtgtaga acacttctac 240  
 tcccgctgcag ggctagtagg agttgtggag gtgaaagact caggcactag tcaggacggg 300  
 tacacggtgt ggcccataga tgtgatgggc tttgtgcaac agcggcgcaa gttagagcta 360  
 tctacttaca tgcgctttga cgctgaattt acctttgtgt ccaatctcaa tgacagcaca 420  
 acaccgggca tgcatttgca gtacatgtac gtgcgcgcgg gtgcgcccaa accagacggt 480  
 aggaagtcac atcaatggca aacagccacc aaccttcaa tattcgcaaa gttgagtgc 540  
 ccaccgcccc aagtgtctgt cccattcatg tcaccggcgt cagcctacca gtggttctac 600  
 gatggttacc ccacgtttgg cgaacacaag caagctacta atttacaata cggtcagtgc 660  
 cctaacaaca tgatggggca ttttgctatt cggacagtta gtgaatccac caccgggaaa 720  
 aatgtccatg tccgggtgta catgagaatt aagcacgtaa gagcatgggt gccagacct 780  
 ttcagatccc aagcttacat ggtcaaaaac taccgcacat acagccaaac aatatccaat 840  
 actgcagccg atcgtgcgag cataaccact acggactatg aggggtggcgt accagcaaac 900  
 ccgcagagaa ctttt 915

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<210> 28  
 <211> 888  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 28  
 ggagacgaaa tactcgacct aatcgagagt gctgtacaga ataccactaa agccattacc 60  
 agctcaatcg acaccaaaac tgggtgctaac actcaagcta gccaacatcg tataggcttg 120  
 ggggaggttc ccgctcttca agctgctgag acaggatcgt cttcgctcgt ttcggacaag 180  
 aacatgatag aaacaagggtg tgtcgtaaac aaacacagca cagaggaaac cagcattaca 240  
 aacttctact ccagggcggg cctagtgggg gttgtgaaca tgccagtaca aggaaccagc 300  
 aacacaaagg gtttcgcaaa gtgggggata gatataatgg gctttgtgca gatgaggcgc 360  
 aaacttgagc tcatgacata catgagattc tccgccgagt ttacgttcgt acccagcact 420  
 cctgggggag agactactaa ccttatactg caatacatgt atgcacctcc cggagctccg 480  
 ctgccaaacca ggcgggattc atacgaatgg caaacatcca ctaaccctc tattatcagc 540  
 aagatggcgg acccaccgc tcaggatatg gttccattcc tttctcctgc atcagcatat 600  
 cagtggttct atgatggcta cccacattt gggaaacacc caatagatca ggacttccaa 660  
 tatggcatgt gcccaaaca catgatgggc acattctgtg tgcgcatgat cgggtgggggc 720  
 aaaccgaccc aatcagttac catacgtata tacatgagat taaagcatat ccgtgcatgg 780  
 gtgccccggc cactgaggag tcagaattac actatgagga attacccgaa ctacaacggg 840  
 ggcgcaataa aatgtacatc aaaaagcaga gctaccataa caacctta 888

<210> 29  
 <211> 882  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 29  
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 gccccatcac acgacactac agcagccaac acctcagtga gtaatcataa aattgggtacg 120  
 ggggatgtcc cagctctcca agctgcagag actggcgcta cttccaatgc ctacagacgag 180  
 aacatgattg agacacgatg tgtgttaaat cgcaatgggg ttgtggaaac tagtttggac 240  
 catttctttt caagagcagg ccttgtggga gtgatcaatg tgcaagatgg cggcactcag 300  
 aagggttttg aagtgtggga catagatgtc atgggggttg ttcaactcag gaggaagttg 360  
 gagatgttca cgtacatgag gttcaacgcc gagttcacat tcgtatccac actcgcgat 420  
 ggcacaactc ccagagtgat gttgcagtac atgtacgttc cacctggtgc cccaaacct 480  
 caggagagag attcgtttca gtggcaaaact gcaaccaacc catcagtatt ttgcaaaatg 540  
 agtgaccctc ctccacaggt ttccgttcct ttcattgtcac cagctagtgc ctaccaatgg 600  
 ttctacgatg ggtacccaac attcgatgat cgaccggcca cctcaaacca cccgtacggg 660  
 cagtgcccc aatacatgat gggcacattc gcagtgcggg ttgtcagcaa gacccagcc 720  
 acacgggatc tgcgtgtcag agtgtacatg cgctgaaac acgtgcgcgc atgggtaccg 780  
 agacctatcc gatctcaacc ctatatattg aaaaactacc caaattatga tggcacaag 840  
 ataacgtcga catctaagga taggcaaagc atcaaaacaa ca 882

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<210> 30  
 <211> 894  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

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 actagtgggtc aagatgtcaa cacagcggcc ggtaccgctc ctagctctca caggttggag 120  
 actggtcgtg ttcccgcctt acaagcagca gaaactggag ccacttctaa cgctacagat 180  
 gagaacatga tagaaacgag gtgtgtcatg aacagaaatg gagtggttga ggcgactata 240  
 agtcatttct tctcacgctc aggtttgggtg ggtgttgtca atctaactga cggaggcacc 300  
 gatacaacgg gatatgcagt gtgggacatt gacatcatgg gttttgtgca actgcggcgg 360  
 aaatgtgaga tgttcacata catgagattc aacgctgagt tcacattcgt cactacaaca 420  
 gaaaatggcg aggcaaggcc atttatgtta cagtatatgt atgtacctcc aggtgccctt 480  
 aagccaacgg gtagagatgc ttttcagtgg caaacagcga caaatccatc cgttttcgtt 540  
 aagctcacag atccacctgc tcaggtatca gtcccttca tgtcacctgc tagtgacctac 600  
 caatgggttct atgacgggta tccaacattt ggacaacacc cggaaacatc taatacaaca 660  
 tatggacagt gccctaacaa catgatgggg acctttgtctg tgagagtagt gagtagagt 720  
 gctagccagc tcaaactaca gacacgagt tatatgaagc ttaagcatgt gagagcatgg 780  
 atccctaggc caataagatc ccagccttac ctctaaaga attttccaaa ttatgatagt 840  
 agtaagatca catacagcgc aagagatcgt gccagcataa aacaagctaa tatg 894

<210> 31  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 31  
 gggccaatag aagaaatcat ctcaactggt gccagtaacg cgttggcgct cagtcaaccc 60  
 aagccagtgg acaactctgt acaaaacacc caacaaagt ctcagtgca tagccaggag 120  
 gtgccagcat tgaccgcagt ggagacaggg gcgacaagt atgtgggtcc atctgacct 180  
 attcagacta gacacgtatt gaatgttaaa tccaggtctg aatccaccat cgagtcattt 240  
 tttgcaagag ctgcatgtgt aaccattatg caggtggaca atttcaacgc aacctctgtg 300  
 gaagacaaaa gaaagtgtgt tgctaaatgg gcaatcacct acactgatac cgtccagctg 360  
 agacggaaat tagagttttt cacttattct agatttgact tagagatgac ttttgtgcta 420  
 actgagagat actactccca aagctcaggg catgctagat ctcaggtgta ccaaattatg 480  
 tatgttccac caggggcacc cagcctagt gcatgggacg actacacatg gcaaaccatc 540  
 tccaacccat ccattttctt taccaccggc aatgcaccac cgcgcatttc aattccattt 600  
 gttggaatcg ccaatgcata ctacacttt tatgatggct ttagtagagt acctttggag 660  
 ggagaaacaa cagacacagg agacgcttac tacgggtcct cttcaataaa cgattttggg 720  
 aacttgcag tcagggtagt taatgactac aaccagcca gggaggagac aaggattaga 780  
 gtatacatga agcccaaaca tgtgagagtc tgggtgccgc gacctccaag agcggtaagc 840  
 tacagaggac ctggagtcga ctcctatca acatcagtaa cacctttatc caaacatgac 900  
 ctacgcacat ac 912

<210> 32  
 <211> 888  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 32  
 ggagatacag tgagtgatat gatcgaaaat tccatcaacc gaattaccag tgcaatttcc 60  
 actaccaga cacaccagac agcagctgac actagagtta gtacacacag gttaggcacg 120  
 ggggagggtgc cacctttaca agcagcagag acagggtgcc cctccaacgc aaccgacgag 180  
 aacatgattg aaacacgctg tgtcgtcaac aggcacgggg tgagcgagac cagcgtggaa 240  
 tacttcttct ctgctctggg tttggcagga atagtcacg tggaggatgc aactgccact 300  
 aataaggggtt atgccacatg ggagattgat gtcattgggg tgcgcgaact gcgtcgcaag 360  
 ctggagatct tcacatacat gcgcttcgat gcagagttca cttttgtggc aacagaacgc 420  
 aatgggagca ccagcccggg catgatgcag tacatgttcg tgccccctgg cgcctctgtt 480  
 ccaacaggga gagatacctt ccaatggcaa tctgtacta acccttcagt gctagtaaaa 540  
 atgacggatc caccggccca agttgccatc ccctttatgt ctccagctag tgcataccaa 600  
 tggttctatg atggatatcc tacctttgga gaaagaccag ttacaaccaa catgaattat 660  
 ggacagtgtc ccaacaacaa aatgggaact tttgtatac gcactgtctc cggatgaagcg 720  
 tcagggaaaa acatcactat acgtattttt atgagggtga agcatgtaag agcgtgggtg 780  
 cctcgcccaa ttagaagcca gctatatctg cttaaaaatt accccaactt tgataacact 840  
 aagatcctca acgctccca caacagagct tctatcacat caaacaca 888

<210> 33  
 <211> 927  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 33  
 gggttggaag atctaataca acaagttgag tctaacgcat tacaattgtc ccagccaaca 60  
 agaccggcac tcccaccagc cgagcagagt gtccccaaca ctaaccaaac aactccagaa 120  
 cactccaagg aagtcccagc gttaacggca gttgaaactg gcgccacgaa tcctctagag 180  
 cctggcgaca cagttcagac tagacatgtg atacaaacta gaagtagaag tgaaagtaca 240  
 gtggagtctt tctttgcgag aggtgcatgt gtaaccatta tgggagtggg caactataat 300  
 gagacattga aaggagacca gaagtctact ctattttaca cctggaacat cacctacact 360  
 gagacagtcc agctacggag aaaactggaa atgttcactt actccagggt tgacatcgag 420  
 tttacttttg tgggtgactga acgctactac tcatcaaaca gtgggcatgc tctgaaccaa 480  
 gtgtaccaaa ttatgtatgt accacctgga gcaccagtgc caaagaaatg ggatgattac 540  
 acctggcaaa cctcttcaaa cccgtccata ttctacactt atgggtcagc accaccagg 600  
 atatccatac cctttgtggg tatagcaaac gcttactccc acttctatga tgggtatgag 660  
 acagtgccct tgaaaactga caccacagac tcaggagcag cctactatgg agcagtatcc 720  
 ataaacgact tcggactgct tgcagttcgc gtcgtcaatg aacataatcc agtcagagta 780  
 tcatccaaaa ttagagtgtg tatgaaacca aaacatgtca gggatgggtg tcccagacct 840  
 ccaagggtg tagagtatta tggaccagga gtggactaca aggcaaacac tttaacaccg 900  
 ttgccaataa agaatttgac tacttat 927

<210> 34  
 <211> 888  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 34  
 ggtgacaaag tggcagacat gattgagacc gcagtggaga agaccgtgtc ctcactaact 60  
 tcccctattc aaacccccac agccgccaac acaaacgtga gtaatcatcg aattgagctg 120  
 ggggaagtcc cggcttttgca agctgctgaa accggcgcgga cgtctcttgt gtctgatgaa 180  
 tacttgatag agactcgttg tgtagtgaat agccatagta cagaggaaaac tacagtgggg 240  
 cacttctttt caagagcggg gttgggtggga gtgattgacc tcccattaca gggaacagtc 300  
 aacacaggag gattcgctc gtgggatatt gatgtaatgg gatatgttca gatgagaagg 360  
 aaacttgagc tgttcacata tgcccgttc gatgcggagt ttaccttcat agcttccacc 420  
 ccagatggcg aggtgaagcc agtgttctta cagtacatgt tcgtccccc tgggtgcacca 480  
 aaaccaacag ggcgcaacac ctacgaatgg caaactgcaa caaacccttc tgtgttggtc 540  
 aagagcacag atcctccagc acaagtctct gtaccgttca tgtcaccagc cagcgcatat 600  
 cagtggttct atgacgggta cccaaccttt ggaaagcacc tgcttctga tgactttcag 660  
 tacggtatga ccccaaataa catgatggga tegtctctg ccaggatagt gggggaagga 720  
 gcgcctagtg tacacttggt tatccgtatc tacatgcgca tgaaacacgt gcgggtgtgg 780  
 attccacgac ctatgcgcag ccagccatac gttgcgaaga attaccctaa ctacaagggt 840  
 tctgagatca agtgcgcatc atctagtcgt aagtcaatca ccacatta 888

<210> 35  
 <211> 912  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 35  
 gggccaatag aggagatcat ctgcaccgtc gccagcaatg cacttgccct cagtcagcct 60  
 aaaccggtgg ataattctgt acaaaacacc caacagagcg cgcccgtgca cagccaagag 120  
 gttccagcat taacagcagt agagactgga gcaacaagtg atgtggtgcc agctgatcta 180  
 gtgcaaacca ggcattgagt gaatgtcaag tccagatctg agtccactat cgagtcgttc 240  
 tttgcaagag ctgcctgcgt gactattatg caggttgata actttaatgc caccaccagc 300  
 gaggacaaga ggaagtattt tgccaaatgg gccatcacat acacagacac agtacaattg 360  
 aggaggaaat tggaattttt cacgtactcc aggttcgata ttgagatgac tttcgtgcta 420  
 actgaaagat actattctca gagctcggga cacgctagat cgcaggtgta tcaaatcatg 480  
 tacgtccctc caggagcacc aacaccaaatt gcatgggatg attacacgtg gcagacgtct 540  
 tctaaccat caattttctt caccactggt aacgcacccc caggggtttc aatccattt 600  
 gtgggcattg caaatgctta ctacacttt tatgatggct tcagcagggt acctttggaa 660  
 ggagagacca ctgactcagg tgacgcttat tatggcctca cttctatcaa tgactttgga 720  
 acacttgtag taagagtggg caatgactac aaccagcga gagtgagac aaggatcaga 780  
 gtctacatga aacctaagca tgtgagagtg tgggtgtccac gacccctag ggctgtgagc 840  
 tacagaggac ccggtgtgga cctactgtcc acctcagtga cgcccctatc taagcatgaa 900  
 ttgacaacgt ac 912

T.08260" 2987E660

<210> 36  
 <211> 918  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 36  
 ggcaattgaag acttgatcca acagggttgca tcgaatgcgc tgcaaattctc acagccgacg 60  
 cgtccggcac tgccctctac agaaagtctt cccaacacac aacaatcggc accttcgcat 120  
 tctcaagagg tcccggcgct gacagcagtt gagacaggcg cgacaaatcc attggagccg 180  
 tctgacacgg tacaaacaag gcatgtttatc cagactagat ccaggtcaga gtccacaata 240  
 gagtcccttct tcgcgcggtg tgcattgtgtg acaatcatga cagtggaaaa ttttaacgcg 300  
 actgaggcgg cagacaagaa aaagttgttc gccacttgga atattacata cacagacaca 360  
 gtgcagctca gaaggaagtt ggagatgttc acttactctc gatttgacat tgaatttacc 420  
 tttgtcacca cagaaaggta ctacgccagt aactcaggcc atgcgcgtaa tcagggtttac 480  
 caactcatgt atgtaccccc aggagccctt gtgccacaac aatgggatga ttacacgtgg 540  
 caaacttcct ccaaccctac ggtgttttac acatacgggtg acgctccagc gcgcatttcc 600  
 ataccatttg tagggatagc taatgcctat tcccactttt atgacggcta tgcagtgggtg 660  
 ccattgaaag attccaccca ggatgctggt gctgcctatt atggtgcaac ctcaattaat 720  
 gattttggaa tgttggcggt gagagtagtc aacgaattca acccagccag aatcacatct 780  
 aaattgagag tgtacatgaa accaaagcat gttagggtgt ggtgtcctag accaccaagg 840  
 gtggtgccgt acttcggacc cgggtgttgat tataaggata gtttgacacc gctttctaca 900  
 aaagcactca acacttat 918

<210> 37  
 <211> 927  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 37  
 ggcttggaag acctcatcca acaagtggcc acgaatgcat tgagtctgtc gcagcccaca 60  
 agaccgcac ttccaccagc agaacaaagt gtgccaaaca ccagtcagac caccacagaa 120  
 cattcaaagg aagtaccgcg actcactgca gtggagaccg gtgcaaccaa cccattggaa 180  
 ccaggtgaca cagtgcaaac tagacatgtt gttcaaacaa gatcaaggag cgaaagtacg 240  
 gtggaatctt tctttgcaag agggggcggt gtcacgatta tgggagttga caattacaat 300  
 gaaagcttga ccagtagtca aaaatccacc ctattcgcca cttggaatat tacatacact 360  
 gatacagtac agttgaggag aaaattggaa atgttcacct actccagatt tgacattgaa 420  
 tttaccttcg tagtaactga acgttactac tcgtcaaaca gtggccatgc cttgaatcag 480  
 gtgtatcaaa tcatgtatgt gccaccaggc gctccaattc ctaagaagtg ggatgattat 540  
 acctggcaaa catcatcaaa cccctcaata ttctacacct atggaacagc accaccacga 600  
 atttcgatcc cttttgtggg cattacaaac gcgtactcac atttttatga cggatatgcg 660  
 actgtaccac tcaagacaga cactacggat ccggggggcg ccttctatgg agcagtttcc 720  
 atcaatgact ttggtttgtt ggcggtgcga gttgtcaacg agcacaaccc ggtaagagtg 780  
 tcttcaaaga taagagtgt catgaagcct aaacatgtca gagtgtggtg cccacgacca 840  
 ccacgtgccg tggagtacta cggaccaggg gtagattaca aggcaaacac attgacacct 900  
 ctccctacca agaacttaac tacttat 927

"092301" 2987363

<210> 38  
 <211> 888  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 38  
 ggtattgatg atatcataga taatgttgta accaatgctt tgaagggtgtc catgccacaa 60  
 gttcaagata cgcaatctag tggaccagtt aactcaaaag aagtacctgc attaacagct 120  
 gttgaaacag gggctactag tcaagttgac ccatcagacc taatagaaac tagacatggt 180  
 attaataacc gcctcagatc tgagtgcaca atagaatcat tctttgggag gtcagcatgt 240  
 gtggccataa ttgggttatc taaccaaaaaa cccaccagtg acaatgcagc caagctcttt 300  
 gctacatgga agattagtta tcttgatatg tatcaattga gaagaaaatt ggaattcttc 360  
 acatactcca gatttgatct tgagttaacc tttgtaattt cagaaaagatt cttcacctca 420  
 acttcagctg ctgcaagaga ttatgtatac cagatcatgt acattccccc aggagcccct 480  
 atccctcagg tatgggatga ttacacatgg caatcatcca caaaccctc aatattctac 540  
 accacaggaa atgcatgccc tagagtgtcc atcccttttg ttgggatcgg tgcagcatac 600  
 tctcacttct atgatggatt ctcttttagta cctttcaata ccatcgatgc tgggtgcttca 660  
 aacagggtacg ggtacaccac cataaatgat tttgggacta tggcaatcag gatagttaat 720  
 gaatacgacc cagtcacaat tgatgcaaaa gtcagggttt acatgaaacc aaagcatatt 780  
 aagggtgtgtt gccccagacc tccacgggca gtagcataca atggggccaac agtgaatttt 840  
 aatgaaaacc cccatgtaat gacagcagtt gctgatatta gaacttat 888

<210> 39  
 <211> 909  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 39  
 ggtatcgaag atcttatcac cgaagttgca agcaacgctc tgaagttgtc acaaccaaaa 60  
 cccagcacac aacagagttt accaaacact agtagctcag aaccaactca ctctcaggaa 120  
 gcgcggcat tgaccgcagt agaaacagga gcaactagta gcgtagtacc agctgatctg 180  
 gtccagacgc ggcattgtgat acaaacacgt agccgaagtg agtctacagt tgagtcattc 240  
 tttgctcggg gggcgtgtgt aacaatcatg tcagtggaaa attacaatga aaccgctatc 300  
 gcagagtcca aattattttac caagtggaaac attacctaca cagacacagt ccagttgaga 360  
 agaaaactag agatgttcac atactccaga tttgatattg agttcacatt tgtggtgact 420  
 gagcgttacc actccgcaaa ctcaggctcat gcactaaatc aagtttacca gatcatgtat 480  
 gttcctccag gtgcaccagt gccacaaaga tgggaocgact acacatggca aacgtcatcc 540  
 aaccctcag tctttttatc ctatggtaca gcaccagcca gaatatcgat tccatatgta 600  
 ggcatagcca atgcctactc gcatttttat gatggcttcg ccaaagtgcc cattgaaggc 660  
 gagacgtcag atccagggtga tgcatactat ggtgcaacgt ccatcaatga tttcggcatc 720  
 ttagccatac gtgtggtcaa cgaacacaat ccagtgcaag tttcttccaa gattagagtg 780  
 tacatgaaac ctaaacatgt gcgcgttttg tgtcccagac cacctagagc tgttccatac 840  
 tttggccccg ggggttgatta taaagggtgac gccctcacac cactatcacg caaggattta 900  
 accacctat 909



<210> 40  
 <211> 888  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 40  
 gggattgagg atacaatcga aaaagtgggtt ggtgatgctc taagggtctc aatgccacaa 60  
 gttgccaaca cccagccatc aggaccogta aattctaagg aagttccagc actgacagca 120  
 gtggaaacag gtgcaaccag tcaagtcacc cctgaagatt tgatcgaaac caggcatggt 180  
 attaacaata gactaagatc tgagtgcact gtggaggcct tctttggaag gtctgcatgt 240  
 gttgccatcc ttggtgtggt aaacaaaaag ccagacacca caaatgccaa agacctcttt 300  
 acaacatgga ggatcactta cctgcaaact tatcaactga ggaggaaact cgaactcttc 360  
 acgtatttcta gatttgattt ggaattaacg tttgtcatta cagaaagata cttttcaggg 420  
 acagcagcca caaccagaga ttatgtttac caaataatgt atgtaccacc aggagccccc 480  
 ataccaaaata cctgggacga ctacacctgg cagtcatcta ccaaccctc tgtcttctac 540  
 accacaggca atgccagccc acgcatgtct ataccctttg ttggtattgg tgccgcctat 600  
 gctcactttt atgacgggtt cagtgtggta ccattcaatc aaatagatgc aggagcatcc 660  
 aacaaatatg gctactcatc aatcaaagac tttggtacat tggcagttag aattgttaat 720  
 gagtttgatc cagtgacaat agaggctaaa gtcagagtgt acatgaaacc caaacatgtc 780  
 aggggtgtgt gtccaagacc acctcgtgca gtaccatatc aaaactcatc agttgatttc 840  
 gcccaaaacg cagtagcaat gaaccaagta gccacaatta ggacgtat 888

<210> 41  
 <211> 915  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 41  
 ggtatcgaag ataccattga cactgtcatt aacaatgccc tacaactatc tcaaccacag 60  
 ccaaataagc agttgacagc tcagtctacc ccctccacaa gtggagtaaa ctcccaggag 120  
 gttccagctc tgaccgctgt ggaaaccggt gcctcgggac aagcagtgcc cagtgatgtg 180  
 attgagacca gacacgtggt taattataag acccgatctg aatctactct tgagtctttc 240  
 tttggaaggt cagcttgtgt caccataatt gaggtcgaga acttcaatgc cactagtga 300  
 gcagacaaga ggaaacagtt caccacttgg ccaatcacat acaccaatac cgtgcaattg 360  
 cgcaggaaac tagaattctt cacttactcc aggtttgacc tagagatgac ctttgtagt 420  
 acagaaaagat attatgccag caacacaggt cacgccagaa accaagtgtg tcaaataatg 480  
 tacattcctc ctggtgcacc acaaccacac gcatgggatg attacacgtg gcaaagctct 540  
 tcgaatccgt cagtctttta cacttatggg agtgcctcac ccaggatgtc tataccgtat 600  
 gtcggtatcg caaatgcata ctctcttttt tatgatgggt ttgcacgagt accactgaag 660  
 gacgaaacag cggactcagg tgatactttt tacgggctag tcaccatcaa tgattttgga 720  
 accttagcaa taagagtagt gaatgaattt aaccagcta ggattacatc aaaaattaga 780  
 gtgtatatga aaccaaagca tgtaagatgc tgggtgcccta gaccaccacg tgcagtgtca 840

09937862 092801

taccgtggtg aaggagtaga ttttaattca agttcaatca caccactaac agcagtcgca 900  
aacatcaaca cattc 915

<210> 42

<211> 852

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 42

agcccagtgagg aggaatccat tgagagaagc attggcagag ttgctgacac cattggtagt 60  
ggaccatcca attcggaggc aataccggca ctcacagcag tagaaacagg acacacatca 120  
cagggttacac ctagtgcacac gatgcaaaca agacatgtgc acaactacca ttcaagggtcc 180  
gaatccagcg tagagaactt cctggcacgc tcggcttggtg tgttttatac aacatacacc 240  
aacggtaaaaa aaaaaaatgc cgccaaagag aagaagtttg caacgtggaa agtgagtgtt 300  
agacaagccg cccaactaag aagaaagcta gagttattca catacttacg ctgtgacatc 360  
gaattaacat tcgtcatcac cagtgcacaa gatccatcga ccgctaccaa cttggatgtg 420  
ccagtgttga cccatcaaatt aatgtacgtc ccacctgggtg gtccagtccc tgaaaccgtg 480  
gacgattaca actggcaaac atctacaaat cccagccttt tttggactga agggaatgca 540  
cctccacgca tgtcaattcc attcatgagc ataggcaatg cctatagtat gttctatgat 600  
ggttggtccg agtttaggca tgacgggtgtg tacggcctga atacccttaa caatatgggc 660  
acaatatatg ctaggcacgt caacgctgac aaccaggtga gcacaccag cacagtgaga 720  
atatacttca aacccaaaca tgtcaaggca tggattcctc gcccgctcg tttggcacag 780  
tatcttaaag ccaataatgt gaattttgag atcaccgatg tgacagaaaa gagagatagt 840  
ctcacgacca cg 852

<210> 43

<211> 846

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 43

agcccagtgagg agggcgccat agagagagcc attgcacggg tcgctgacac tatgccaagt 60  
ggcccaacca attcagaagc agtgccctgcc ctgacagcag tggaaacggg ccacacctcc 120  
caagtcgtcc ccagtataaa catgcaaacc aggcacgtga agaagtacca ttcacgtcc 180  
gaaaccagcg tcgagaactt tctgtgtagg tctgcatgtg tatattttac cacatataag 240  
aaccagacag gggcgaaaaa tagatttgct tcttgggtta tcaccacaag acaagtggcc 300  
cagctcagga gaaaactaga aatgtttacg taacttgcgtt tcgacattga actcaccttt 360  
gtcattacaa gtgcgcaaga ccaatccact atttcccaag acgcccctgt gcagacacat 420  
cagataatgt acgtgccacc gggaggccca gtgccaacca aagttgacga gtatgtgtgg 480  
caaacatcca ccaaccccag cgtcttttgg accgagggtg acgctccacc acgtatgtca 540  
gttcccttta tgagtatcgg taatgcttat agcacatttt atgacgggtg gtctgatttt 600  
tcaaacaaag gaatatatgg gttgaacacc ttgaacaaca tgggaacatt gtacatccgc 660  
cacgttaacg ggcccaaccc agtaccaatt accagcacag tgaggatata ctttaagccc 720  
aagcatgtta aggctgggt gcctaggcct ccaaggcttt gccagtacaa aacgtttagg 780

108260 "092301"

caagtcaact ttacagtgcac tggagtgcac gagagtaggg caaatataac caccatgaat 840  
actaca 846

<210> 44  
<211> 852  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 44  
ggtgatgtgc agaatgctgt cgaaggggct atggtcaggg tggcagatac agtgcaaact 60  
tcagccacaa actcagagag ggtgcctaac ttgacagcag tagaaactgg tcacacttcg 120  
caggtagtac ctggtgatac catgcagact agacatgtga tcaacaatca cgtgagggtca 180  
gaatctacaa ttgagaactt ccttgccaga tcagcgtgtg ttttcttcct agagtacaag 240  
acagggacca aagaggattc caatagcttc aacaattggg tgattacaac caggcgagtgc 300  
gctcaactac gtagaaaact ggaaatgttt acttacctac ggtttgacat ggaaatcacc 360  
gtggtcatta caagctcgca agatcagctt acatcacaaa accagaatgc accagtgcct 420  
acacaccaga taatgtatgt accaccaggg ggaccatac ccataagcgt ggatgattac 480  
agctggcaaa catccaccaa cccagtatc ttttgaccg aagggaacgc tccggcacgc 540  
atgtcaattc catttattag cataggcaat gcgtatagta atttctacga tgggtggtct 600  
cacttctccc agactggcgt gtatggcttc actactctga acaacatggg tcaattgttc 660  
ttccggcacg taaacaagcc caaccagcc gctattacaa gtgtggcgcg catttacttc 720  
aaaccgaaac atgtacgcgc ttgggtgcct agaccaccgc gcttgtgtcc atacatcaat 780  
agcacgaatg tcaactttga acccaagcca gtgactgaag tacgtaccaa cataataaca 840  
acgggtgcct tc 852

<210> 45  
<211> 882  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 45  
ggagatgagg tgaagcatga acccacagtg gccaacacaa cagcaagtgg accatcaaat 60  
tcacaacaag taccggcact cacagcagtg gagactgggc acacctcaca ggtgggtcca 120  
agcgatacca tacaaccag acatgttcac aattaccata gtagaactga atccaccctg 180  
gagaacttcc tcggaagatc agcatgcgtg cacattgact cgtataagac caagggagtgc 240  
accggcgaga gcaccggta cgcacatggg gagatcacca ctccgcgagat ggtgcagctg 300  
cggagggaagt gtgaactctt cacctacatg cgatatgatc tagaaatcac gtttgtgatt 360  
acaagtcgcc aggagcaagg ggccaaactg tcgcagaaca tgccagtatt aacacatcag 420  
atcatgtatg tcccaccggg cgggcctata ccaaccagca acgagagtta cgcttggcaa 480  
acgtcaacga acccaagcgt gttttggaca gaaggaagct cgccaccacg aatgtcaata 540  
ccgtttgtta gcataggaaa cgcatacagc aatttctatg atgggtgggc gcacttctca 600  
caaaacggtg cgtatgggta cagggcacta aacaagatgg gtaggatatt cgtgcgccat 660  
gtaaacaaag agacaccact gcaagtcata agcacaatac ggatgtatat gaagcccaaa 720  
cacgtgcggg cttgggtgcc aagaccacca cgctgtgtc catacctgcg ggcgggtgat 780

ataaactttg aagtgactga tgttacagaa aaacgaaata acatcaatta tgtcccaacc 840  
ccatcccaca gcagcagtgt gcacatgcgc ttgaacaacc at 882

<210> 46  
<211> 879  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 46  
ggggacgtcg aagaggcaat tgatagggca gttgagggg tggctgacac aatgcccaacc 60  
gggccacgaa acactgagag cgtgcctgcc ctgacagcag tagagacagg ccacacctca 120  
caggtcgttc ctggtgacac aatgcagacg aggcattgta agaactatca ctccaggaca 180  
gagtcacata ttgaaaactt cctgtgcagg gctgcgtgag tgtatataac aacatacaaa 240  
tcagctgggtg gaacacccac agagcgatat gcaagttgga ggataaacac caggcaaattg 300  
gtgcagctca ggaggaaatt tgagctcttc acataactgc gctttgacat ggaaatcaca 360  
tttgtgatca caagcacaca agatcctggg acacaattgg cacaagatat gcctgtacta 420  
actcatcagc tcatgtatat cccacctggg ggccctgttc ctaacagtgc cacagatttt 480  
gcatggcaat catcaactaa tccaagtata ttttggacgg aaggctgtgc tccagcacga 540  
atgtcgggtg cgttcacacg cattggcaat gcctacacca atttttacga tgggtgggtcg 600  
catttcaccc aagaaggggt ttatgggttt aactcactga acaacatggg ccacatatat 660  
gtgaggcacg tcaatgagca aagcctgggt gtctcgacca gcaccgttcg cgtgtatttt 720  
aaacccaaac atgtgcgtgc ttgggtacca agaccacca gactgtgccc atacactaag 780  
agttcaaattg tgaatttcaa accgaccgct gtcactgatg agcgaaagga tatcaacgat 840  
gtaggcaccc ttcgaccaac agtgtacact aaccttggtg 879

<210> 47  
<211> 843  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 47  
ggagacgtgc aagatgcagt gacaggtgct atagtacgtg tcgctgacac tctcccaaca 60  
ggccctcaa ataataagc tataaccaat ttaacagcag tggagactgg ccataacctg 120  
caagtgcac caggcgacac aatgcaaaca cgccatgtgg tgaacatgca caccgctct 180  
gagtcgtcca tcgagaattt cctggcacgt tcagcatgag tgtactacct tgattacaa 240  
acggggagaag ggcccgga tcagtatttt ggccagtggg ccattaccac gaggagggtt 300  
gagcaattgc gtcgaaagct ggagatgttc acttatctaa gatttgacat ggaaatcaca 360  
atcgtgatta ctagtccaca ggatcaatct accatctcga acccagatac accagttttg 420  
acgcacaaa ttatgtatgt accaccagga ggaccaatcc cagcaaaagt cgatgattac 480  
agttggcaaa catccacgaa tcccagcgtg ttctggactg aagggaatgc gcctgccgr 540  
atatccatcc cattcattag cgttggaat gcatacagta gcttttatga cgggtgggtcg 600  
aacttctcac aaaacgggag gtatggctac aataccctca acaacatggg acaattgttc 660  
tttaggcacg ttaacaaacc cagccctaact actgtcaca gcgtcgccc catatacttc 720  
aagcctaagc acgtgagagc ttggatcccc cgaccaccgc ggttgtgtcc atacataaat 780

gcgggagacg tgaacttcac tccgacacca gtgactgaaa agcgaaagga cctaataacc 840  
acg 843

<210> 48

<211> 843

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 48

ggagatgtgc aggacgcagt ggctggggcc atagtgcgtg tggctaatac tctcccatca 60  
ggcccctcaa acaatgaggc tatacccaac ttaacagccg tagaaaactgg acacacctcg 120  
caggtgacac cgggtgatac aatgcagacg cgccacgtag tgaacatgca cactcgttct 180  
gagtcgtcaa tgcagaactt cctggcgcggt tcagcatgtg tatactacct cgattaccga 240  
acaggaacgg ggctggcaa tcaatacttt agccagtggga ctattaccac aagacgagtt 300  
gcgagctgc gtcgaaaatt ggagatgttc acctatctaa ggttcgacat ggagatcacg 360  
attgtaataa cgagttcaca agatcagcct accgtccgaa acccagacac accggtcttg 420  
acacacccaaa tcatgtatgt gccaccagga gggccaatcc cagcaaaggc cgacgattac 480  
tggtggcaaa catccacaaa cccagtggtc ttctggactg aagggaacgc accagcccgg 540  
atatccatcc cgttcatcag tgctgggaat gcataatagta gtttctacga tggatgggtca 600  
aatttctcgc aaaatggggt gtatgggtac aacaccctga acaacatggg gcaattgttt 660  
ttcaggcatg tcaataaacc cagtcccaac actgtcaca gtgttgccc catatacttc 720  
aagcccaaac acgtgaaggc atgggtccc cgaccaccgc gattgtgccc ttacattaat 780  
gctggagatg taaatttcac ccccatcgc gtcactgaga agcgagcgag cctgataacc 840  
aca 843

<210> 49

<211> 843

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 49

ggggacgtgc aagatgccgt gactggagcc atagtgcgtg tcgccgacac actgcacacg 60  
ggaccctcga acaacgaagc aatacccaat ttgacggccg tggaaacagg gcatacatcg 120  
caagtgcac caggcgatac aatgcagacg cgtcacgtgg tcaacatgca caccggttca 180  
gagtcaccaa ttgagaactt cctagctcga tctgcgtgtg tgtattacct cgactatcaa 240  
acagggtcag gacctggcac ccaatacttc ggccagtggga ccatctccac aaggagagtt 300  
gcgcaactgc gccggaagt ggaaatgttc acctacctaa gatttgacat ggaaataaca 360  
atcgtgatca ccagttcgca agatcactcc accatctcaa atccagatac accaatcatg 420  
acgcacccaaa ttatgtacgt accaccaggg ggtccaatcc cggcgaaggc cgacgactat 480  
agctggcaaa catctacaaa ccctagtgtg ttttggacag aagggaacgc acccgcccgc 540  
atatccattc cattcattag tgctggaaat gcctatagca gcttctacga cgggtgggtca 600  
aatttctcgc aaaacggccg atatggatc aacactttga acaacatggg acaactattc 660  
ttcagacacg tgaataagcc cagccccaac accttcacaa gtgttgccc tgtatacttc 720  
aagccaaaac acgtgaaggc gtggattcca cgaccaccgc gattatgtcc atacataaat 780

gcgggagacg tgaatttcaa accaacaccc gtgaccgaaa agagggcgag cttaatcacc 840  
aca 843

<210> 50  
<211> 876  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 50  
ggagactcag agcacgcagt ggaaagcgcc gtatctaggg tggcagatac aattatgagt 60  
ggcccggtcaa actcccaaca ggtccccgct cttactgcag ttgaaactgg acacacatcg 120  
caagttgttc caagtgtatc catccaaacc agacatgtgc agaatttcca ctctaggtcc 180  
gagtcgacca ttgaaaattt cctgagtagg tcagcatgtg tgcataatcg caattacaac 240  
gcgaagggcg ataagacgga tgtggacagg tttgacaggt gggagatcaa cattcgtgaa 300  
atggtgcaac tacgtaaaaa gtgtgagatg ttcacatatc tacgctatga tattgaagtt 360  
acatttggtta taaccagcaa acaggatcag ggccccaac taaaccagga tatgcctgtt 420  
cttaccaccc aaattatgta cgtaccccc ggaggttcag tacctagcac cgttgagagc 480  
tatgcgtggc aaacatcaac aaaccctagc gtgttttggc ccgaggggaa cgctccagct 540  
agaatgtcca taccctttat cagcataggg aacgcttata gtagcttcta tgatggatgg 600  
tcacacttta ctcaaaaagg ggtctacgga tacaacacat taaacaagat ggggcagcta 660  
tttgtcagac atgtgaacaa acagaccccc acgccagtta ctagtaccat aagggtttac 720  
ttcaaaccaa agcacattag agcttgggtc cctaggcccc cgcggttatg cccctatgtg 780  
aacaagacaa atgtaaactt catcaccaca caggtaacag aacctacaaa tgacctcaat 840  
gacgtgcccc agtctgagca taacatgcac acatat 876

<210> 51  
<211> 867  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 51  
aacgacgttc agaacgcggt ggaacggtca attgttcgtg tagcggacac attaccaggt 60  
gggccaagca actcagaaaag cataccagca ctacacgag ccgagactgg acatacctcg 120  
caggtcgtcc ccagcgacac catccagacg cgacatgtga ggaattttca cgttcggtct 180  
gagtcacggt tagagaattt tcttagcagg tcagcttgcg tgtacatcgt ggagtacaaa 240  
acccgggaca cgactcccga caagatgtat gatagctgga ttatcaatac caaacaagtg 300  
gcgcagttga gaaggaagct ggagttcttt acctatgtca gattcgacgt ggaagttacc 360  
tttgtcataa ccagcgtgca agatgactcc acaaaacgga acaccgacac cccagtgtca 420  
actcatcaaa ttatgtatgt gccgccagga gggcccatc cacaagcggt ggacgattat 480  
aactggcaaa cttccacca cccagcgta ttttggactg aggggaacgc gccaccaagg 540  
atgtctattc cgttcagtag tgttggaat gcatacagta acttctacga cgggtggtcc 600  
cacttttctc aaactggggt ttacgggttt aacaccctaa acaacatggg taagttatat 660  
ttcaggcatg taaacgacag gactattagc ccaatcaaaa gtaaggtcag aatatatttc 720  
aaacccaaac acgtgaaggc atgggtaccc agaccgccga gatttgtgtga atacaccac 780

aaggataacg tggactatga accaaagggg gtcacaacat cacgcacttc aatcaccatc 840  
 accaactcca cacacatgga gacgcac 867

<210> 52  
 <211> 867  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 52  
 aatgacgttc aaaatgcagt cgagcaatca attgttcgtg tggctgacac gttacccagt 60  
 ggacccagta attcagagag cataccggca ctgacggccg ccgagactgg ccatacttct 120  
 caagttgtgc ccagtgtatc tatacagaca cgccacgtaa aaaactttca tgtgagggtc 180  
 gagtcgtcag tagagaactt tctcagtagg tccgcttgcg tgtatatagt gggatacaag 240  
 accacagatg cgacccctga caaaatgtat gacagctggg ttatcaacac aaggcagggtg 300  
 ggcgagctaa ggagaaaatt agagttcttc acctatgtta ggtttgatgt tgaggtcacc 360  
 tttgtgataa caagcgtgca agacgattca actagacgga acacagacac ccccgttcta 420  
 acccaccaaa tcatgtacgt acccccaggt gggcccatcc cgcaggcagt ggacgactac 480  
 aattggcaaa cttccacaaa tcccagtgtt ttttggacag aagggaatgc cccaccaaga 540  
 atgtccatac cattcatgag cgtaggtaac gcatacagca atttctatga tgggtgggtc 600  
 cacttctctc aaactggggg gtacgggttt aacaccctga acaacatggg caagctatac 660  
 ttcaggcatg tgaacggcaa gacaataagc cctatcgcaa gcaagggttag gatttacttc 720  
 aaaccaaagc atgtgaaggc atgggtgcc agaccaccgc gattgtgtga atacaccac 780  
 aaggacaatg tggattacga accaaagggg gtcacaacat cccgtacatc tatcacaatt 840  
 agcaattcca ctcatatgga aacatat 867

<210> 53  
 <211> 867  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 53  
 aacgacgttc agaacgcggt ggaacggtca attgttcgtg tagcggacac attacccagt 60  
 gggccaagca actcagaaag cataccagca ctacacagcag ctgagactgg acatacctcg 120  
 caggtcgtcc ccagcgacac catccagacg cgacatgtga agaattttca cgttcgggtc 180  
 gagtcacgag tagagaattt tcttagcagg tcagcttgcg tgtacatcgt ggagtacaaa 240  
 acccatgaca cgactcccga cgagatgtat gatagctgga ttatcaatac cagacaagtg 300  
 ggcgagttga gaaggaaagc ggagttcttt acctatgtca gattcgacgt ggaagttacc 360  
 tttgtcataa ccagcgtgca agatgactcc acaagacaga acaccgacac cccagtgtta 420  
 actcatcaaa ttatgtatgt gccgccagga gggcccatcc cacaagcggg ggacgattat 480  
 aactggcaaa cttccaccaa cccagcgtt ttttggactg aggggaacgc gccaccaagg 540  
 atgtctattc cgttcctgag tgttggaat gcatacagca acttctacga cgggtgggtc 600  
 cacttttctc aaactggggg ttacgggttt aacaccctaa acaacatggg taagttatat 660  
 ttcaggcatg taaacgacag gactattagc ccaatcaca gcaagggtcag aatatatttc 720  
 aaacccaaac acgtgaaggc atgggtaccc agaccgccga gattgtgtga gtacaccac 780

aaggataacg tggactatga accaaagggg gtcacaacat cacgcacttc aatcaccatc 840  
 accaactcca cacacatgga gacgcac 867

<210> 54  
 <211> 876  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 54  
 ggcgacaccg aaacggctat tgacaatgca atcgccaggg tagcagatac ggtggcgagc 60  
 ggtcctagta attcgaccag tatcccagca ctccacagcag ttgagacagg tcacacgtca 120  
 caagtcgagc ccagcgatac agtgcaaact agacatgtca aaaactacca ctcgcggttct 180  
 gagtcaaccg tggaaaactt tctaagtcgc tccgcttggtg tgtacatcga agagtactac 240  
 accaaggacc aagacaatgt taataggtac atgtcgtgga caataaatgc cagaagaatg 300  
 gtgcaattga ggagaaagt ttgagctgttt acatacatga gatttgatat ggaaatcacg 360  
 tttgtaatca caagtagaca actacctggg actagcatag cacaagatat gccgccactc 420  
 acccaccaga tcatgtacat accaccagggt ggcccgggtac caaacagcgt aacagatttt 480  
 gcgtggcaga catcaacaaa ccccgattt ttctggacag aaggaaacgc gccacctcgc 540  
 atgtctattc cattcatcag tattggcaat gcataatagca acttctatga cgggtggtca 600  
 cacttttccc aaaacgggtgt gtacgggatac aacgcccgtga acaacatggg caagctgtac 660  
 gcacgtcatg ttaacaagga cacaccatac cagatgtcaa gcacaatccg agtgtatttc 720  
 aaacccaagc acatccgagt atgggtccca cggccgcctc gactgagccc gtacatcaaa 780  
 tcaagtaatg taaattttta cccacgaac ctgacggagc agcggtcac catcacatat 840  
 gtgcccagaca ctatacgtcc agatgtgcgc accaac 876

<210> 55  
 <211> 843  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 55  
 ggtgatgtcc agaatgcagt tgagggggca atgggttagag ttgcagatac cgtgagcact 60  
 agcgccacca actccgaaca agtgccgaac ctgaccgcgg tggagaccgg tcacacatcg 120  
 caggtagtgc ccggcgacac tatgcagacc aggcacgtag tgaacaagca tgtgcgatct 180  
 gaatctacaa ttgaaaattt cctcgcacgt tcagcctgtg tgtactttct tgagtacaag 240  
 actggtacca agactgactc caacgccttc agcaattggg tcatcacaac gcgcaagggt 300  
 gcgcagctga ggcgcaagtt ggagatgttt acatacttaa ggtttgatat ggagattact 360  
 gtggtcatta ctagctccca agaccagtcc acatcacaaa atcaaaaatgc gcccgctctg 420  
 actcaccaga ttatgtatgt accacctggg ggcccagtgcc cactagcgt tgatgattat 480  
 tgctggcaaa catccacaaa cccaagcata ttttgagcgg aaggaaacgc acctgccaga 540  
 atgtccatcc cctttatcag cattggaaat gcttatagca acttttatga tgggtggtca 600  
 catttctcac agaacggagt ctatggtttt accaccttaa acaacatggg ccagctgttt 660  
 tttaggcatg ttaacaagcc taaccggcg acaataacca gtgtggccc catttacttc 720  
 aagccaaaac atgtgagggc ctgggtgcct agaccgccac ggttgtgccc ttacatcaac 780

"09260" 20020901



agtagcaacg tgaacttcga cccaaaacct gtggcagagg tcaggtctag catcatcacc 840  
acc 843

<210> 56  
<211> 876  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 56  
ggtgatgtgg ttgaagccat tgagggcgca gttgctagag tagcagacac tatcagcage 60  
ggccaacaa attctcaagc agtcccagca ctacacgcgg tggagactgg acacacctcg 120  
caagttgtac caggtgatac catgcagacc agacacgtaa agaattacca ctcacgatca 180  
gaatcgacca ttgaaaattt tctgagtagg gcggcttgtg tctacatggg tgagtattac 240  
actacaaata cagatgagac caagagattt gctaattgga caatcagcgc aaggcgcatg 300  
gtacaaatga ggaggaagct tgaaatgttc acgtacgtcc gtttcgacgt ggaggtgaca 360  
ttcgtaatta ccagcaaaac ggaccaaggg aatcggttgg gacaagatat gccccgctc 420  
acacaccaga taatgtacat cccgccaggt ggtcgtatac ccaaaccac cacagattac 480  
gcatggcaaa cgtcgacaaa cccagcatc ttttgacgg agggtaacgc gccccccagg 540  
atgtccattc ctttcatgag cattggaaac gcatatagca atttttatga cggttggtct 600  
cacttctctc aaaatggcgt gtacggatat aacacactaa accacatggg tcaattatac 660  
atgcgccatg taaatggacg atcacctctt ccaatgacca gcacggtgag ggtgtacttc 720  
aaacccaaac atgtgaaaac atgggtgcca cgaccccaa gattgtgcca atacaaaaac 780  
gcctcgacag taaacttttc acccacaac atcacagaca agagggatag catcacttac 840  
attccagaca ccgtgaaacc cgacatgaca acatat 876

<210> 57  
<211> 861  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 57  
ggggatgaga gtgcaaaggc tacagtttcc aacacacagc ctagcgggtcc aagtaattct 60  
gtcagcgtgc caatgcttac tgctgctgag accgggcaca catctcaagc agtaccaggt 120  
gacactatac agaccaggtg cgtagtgaac caacacaagc ggtcgggaatc atccgtggaa 180  
aatttcctgt gtcgctccgc ttgcgtatac tacacaacct atgacactca cggggatgca 240  
gccgacgcaa agtacgccag ttggacgata accaccgaa aagctgcaca gctgcggaga 300  
aaactagaga tgttcacata cttgaggttt gatattagaag tgacattcgt tataacaagt 360  
gcacaagtaa catctaccaa taaacgtcag gacacgcctg ttctcacgca tcaagtcag 420  
tacgtgccac caggtggtgc agtaccgct agtggtgacg attatgcgtg gcagacgtcc 480  
acaaacccaa gtatcttctg gacggaaggg aatgcaccag cacgcatgtc tatacccttt 540  
atcagcgtgg gcaacgcata cagtagcttc tatgatgggt ggtccaactt tacacagaat 600  
ggagtttacg ggttcaacac gctaaacaac atgggaaagc tatacgtacg acacgtcaat 660  
ggagctagcc ccggccctgt gaagagtacc atacggtttt acatgaagcc caaacacgtg 720  
aaggcttggg taccagacc tcctcgctc tgcgagtacg aaaaatcagg caatgtaaac 780

108260 2982659

ttcaaaccba agggcgtgac agagagccgg acgtctatca aattagaaaa accaaaccct 840  
gcgtccaaat taatgaacca c 861

<210> 58

<211> 894

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 58

aatgatccag	agcaagctat	aaatcgggcg	ctagcgaggg	tggcagacac	agttcgtagt	60
gggcccgtcta	actctgaaca	aattcccgc	ctgacagccg	tggagacagg	gcatacatca	120
caagtgcgtcc	ccagtgcacac	aatgcaaacc	cggcatgtga	agaattacca	ctccagggtca	180
gagtcacaaca	tagagaactt	tttgtgtaga	tcggcttgcg	tgcacatcgc	aacatacaag	240
gctaaaggcg	gagctggaga	cgtcgaccgg	tacgacagct	gggacataaaa	cataaaaagag	300
ctgggtacagt	tgcgacgcaa	gtgcgagatg	tttacgtacc	taagggtttga	tatggagggtc	360
accttttgtga	ttaccagcat	acaggagcag	ggcaaagcac	tgacccaggga	catgccgggtg	420
ctaacgcacc	aaataatgta	cgttccaccg	ggcgggtgccg	tgccctagtgg	tgcaaaaagc	480
tttgcggtggc	agtcatacaac	gaatcccagt	gtgtttctgga	cagaaggcaa	tgcaaccagca	540
cgtatgtcta	taccctttat	aagtattggg	aacgcttaca	gtaattttcta	tgatgggtggg	600
tcccacttta	cccagaacgg	tggttacggg	tacaacacac	taaacaaact	gggtaagatc	660
tacgtcaggc	atgtgaacaa	acaaaccccc	acggatgtca	ccagcaccgt	gcgaattttac	720
ttcaagccca	aacacgtgcg	agcttgggtg	cctcgccgcg	ctagactatg	tccttataag	780
aacaaggcaa	atgtaaactt	tgaagttact	agtgtaacca	ctgccagAAC	gagtccttaac	840
gatgtcccca	ctcccaacca	cagtagtagc	gtgcacctgc	gcacgcacac	gcac	894

<210> 59

<211> 882

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 59

ggtgatgacc	aacacaagac	caatacagt	acagacacag	agcagagtgg	cccgtcaaat	60
tccgaacg	tcacagccct	cacagcagt	gagactggcc	acacttcgca	ggtcgtaccc	120
agcgacacag	tgcaaaactc	ccacgtacgc	aattaccact	caaggacaga	gtctacctta	180
gagaattttc	ttggtaggtc	agcatgtgtg	cacatcgaca	catacaaggc	taagggtgaa	240
aaaggatctt	ctgagaggta	cgcgtcatgg	gagataacta	acagggagat	ggtgcaattg	300
cgccgaaaaa	gtgagatgtt	cacatatatg	aggatgacg	tggaaataac	atgtgtgata	360
accagctacc	aggagcagg	cacacgattg	gccaggagca	tgccctgtact	aacacaccaa	420
atcatgtacg	tgcccccg	tgggcctgtg	ccaacaagca	cggagagcta	tgcatggcag	480
acctcaacga	accctagcgt	cttttggaact	gaggggcaacg	caccaccg	tatttccata	540
cccttcacga	gcataaggaaa	tgcgtagctc	aacttttatg	atgggtgggtc	acattttctca	600
caagatgggt	cctatggcta	cacagcgctc	aatagaatgg	ggaaaatata	tattagacat	660
gtaaataagg	agacccccac	acagggtcatt	agtaccgtga	ggatgtacat	gaaacaaaaa	720
cacatttcg	catgggtgcc	cagaccccc	cggctgtgca	aatacctaca	ctcagggaac	780

0937862 092801

atgaacttca acgtggagga cattacagag gagecgaacg atataaacca tgtacccacc 840  
cccagccaca gcagtagtgt gcgtgtgcgt cttggcacca ca 882

<210> 60  
<211> 867  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 60  
ggtgatgttg aggactcagt aaacagagca gtgggttaggg tagcagacac catgccaaagt 60  
ggaccatcca attcgaggc agtacctgcc ttgacagccg ctgagacagg tcacacgtct 120  
caagtgggtgc ctgggtgataa catccaaaca cgtcatgtgc acaactacca ctccagaact 180  
gaatccagta tcgaaaattt cttcgggcgt tccgcatgtg tagtgggtcaa aacatataaa 240  
atgggtcaaa aagttgtagc tacagacaga tatgatagtt ggatgatttc cattagggac 300  
atgggtacaac taagacggaa gtgtgaaatg ttcacgtaca tgagatttga tttagagatc 360  
accttcgtgg tcacgagtta ccaacaatat agtacatcct tgacacagga catgccagt 420  
atcacgcatac agttcatgta tgtgccgcct ggggggtccg ttcctgagag tgtaaatagc 480  
tacgcttggc aaacgtcaac caatcccagt atattctgga ctgagggtaa tgccccagca 540  
aggatgtcca ttcccttcat cagtgttggg aacgcatata gctgcttcta cgatggctgg 600  
tcacacttca cacagaaggg ggtttatggt tataacactc tcaacaacat gggcaaattg 660  
tacatgcgac acgtgaacaa aaatagcccc acagagatca taagcactct tcgtgtgtat 720  
ttcaagccaa agcacgtgaa agcgtgggta cccagaccac ccaggctatg tccatacaaa 780  
tataaggcaa atgttgactt tgaagtgact ccaatcacag acaagcgaga ctccataacc 840  
agcataccag tccccagca cactcat 867

<210> 61  
<211> 861  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 61  
ggggataacc aggatcggac ggtcgccaac acacagccta gcgggtccgtc caactccacg 60  
gaaattccag ccttaacagc ggtggaacg gggcacacct cacaagtga tcccagtgac 120  
actatccaga ccaggcacgt ggtaaacttc cactcacgtt ctgagtcac tatagaaaat 180  
ttcatggggc gtgcagcatg tgtgttcatg gatcagtata aaatcaatgg agaagagacg 240  
tccactgata ggttcgcagt gtggaccata aacataaggg agatggccca attaagaagg 300  
aagtgtgaaa tgttcacgta catgcgtttt gatatcgaga tgacaatggg cattaccagc 360  
tgtcaagacc agggaaacgat actagatcag gacatgcctg ttttgacgca tcaaattatg 420  
tacgtccac cagggggccc aatcccagcc aaagtagata gttacgagtg gcagacatca 480  
acaaacccca gcgtcttctg gacggaagg aatgcaccac cgcgtatgtc tattccattc 540  
attagcgtcg gcaatgctta tagctcattt tacgatgggt ggtcacactt cacacaggac 600  
ggtacctatg ggtatacaac ccttaatgca atggggaaac tgtacattag gcatgtgaat 660  
aggagcagcc ctcatcagat aaccagcacg atcagagtat acttcaaacc caaacacatc 720  
aaggcatggg tgccccgacc accacgattg tgcccgata taaacaaaag ggacgtaaac 780

F09260" 092601

tttgtagtca cggagataac agactcaagg acttccatca ctgatacacc acacccagaa 840  
catagtgtcc tggcaacgca t 861

<210> 62  
<211> 879  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 62  
ggagacatcg tggaggctgt ggagggagcc atctcgcgag tggcagatac tgttagtagt 60  
gggcccagta actctcaagc agtaccagcc ctcacagcag tcgaaacggg tcacacttct 120  
caagtcaatc ctagtgcacac catgcagacc agacacgtga caaattacca ctcgcggtca 180  
gaatccagca tagaaaatct ccttagccgc tctgcttggtg tgtatatggg cgaatacagc 240  
acacaagcat cagatgagac caaaaagtac atgtcatgga ccataagccc aaggaggatg 300  
gttcaaagtc gcaggaagtt tgagctcttc acttacctgc gttttgatgt ggagattact 360  
tttgtaatca ccagcagaca agtcaaggta gggacacaaat taggccaaga tgcccccccg 420  
ctaactcacc aagtcattga tataccccca ggaggcccag tacctgattc agttggtgat 480  
tacgcatggc agacttccac taaccctagt atcttttgga ccgaaggtaa tgcacacccc 540  
aggatgtcaa tacccttcat tagcataggt aacgcctata gcaactttta tgacgggtgg 600  
tcgcattttc accagaatgg cgtctatgga tacaacacgc tgaaccatat ggggcaactg 660  
tacgtgcggc atgttaacgg cccttcacca ttaccagtga caagcacagt cagggtctac 720  
tttaaaccca aacacgtgaa ggcttggtga ccgagggcac ccaggctatg tcaatatgta 780  
aatgcatcca ctgtgaactt cgagccaaca gacatcactg agtcacgcac tgacatcaac 840  
catgttccag acaccgtgaa gccagatctc caaacatac 879

<210> 63  
<211> 843  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 63  
ggggacgtgc acgatgcggt ggttggggcc atgaccctg ttgcagacac gataagtagt 60  
gggccaagca attcagaaag cgtgccagca ttgactgcag ccgagacagg acacacatca 120  
caggtagtac cgagtgcacac catgcagacc agacatgtgc ggaatttcca cacaagatca 180  
gagtcttcaa tagaaaatct catgagtcgc tccgcctgtg tctactatac taagtataag 240  
accaaagacc cggacccaac ggagatgtac tctagttgga aggttaccac caggcaagtg 300  
gcacaactca ggaggaagat ggagatgttc acttatttgc gctttgacgt agaagtgaca 360  
tttgtaataa ctagctcgca agatcagtc acgagtggtg cacaggacgc acctgttctc 420  
actcaccaaa tcatgtacat cccaccgga ggcccgggtc ccaaatacagg tagggattac 480  
tcatggcaat cctgtactaa cccaagtgtt ttctggactg agggtaaatgc accaccacgc 540  
atgtgtattc cgttcattag tattggaggg gcatatagtt cattctatga cgggtggtcc 600  
cactttaacc aacaaggtcc gtacgggtat aacactctca atgacatggg tcaactgtat 660  
tttaggcattg tgaacgaggg tagcccaggg gcggttaaca gctacatcag aatatacttc 720  
aaacctaacc atattagagc atgggtgccc agaccaccta gattgtgtca gtatgagaaa 780

T08260" 2987E650

caagggagcg ttgacttcaa ggtgcagggg gtaactgatg ctcgtagctc gctcaccact 840  
aca 843

<210> 64  
<211> 885  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 64  
aatgacccag cacaagccgt gttgagtgcg atcggtcggtg tcgctgacac cgctcgctagc 60  
gggccatcga attcagagag agttccagtt ctaaccgctg cggagacagg tcatacctca 120  
caggtgggttc ccagcgatac cattcagacg cgccacgctg tcaacttcca cacaagatcg 180  
gagtcaacaa ttgaaaattt tatgtgtcgc tccgcctgctg tgtacatcgc ccggtacggt 240  
actgaaaagc aaggggaaca aatatccaga tacaccaagt ggaagatcac cactaggcag 300  
gtggcgcaac tgcgcaggaa gatggagatg ttcacataca tgcgatttga tttggaaatg 360  
acatttgtaa tcacaagctc ccagcgtatg tcaacggcat atgattcaga cacaccagcc 420  
ctcaccacc aaataatgta cgtgccacct gggggcccg agccccgtca ttatgaggat 480  
ttcgctggc agacatccac aaatccaagc atattttgga ccgaaggtaa cgcaccacca 540  
cgcttatcaa tcccatttat gagtgtggga aatgcctatt gcaattttta tgatgggtgg 600  
tctcactttt cacaagtgg agtgtatggg tttaccacct taaataacat gggacaactg 660  
ttcatgcgcc atgtcaataa gtcaacagcg caccaccattg atagtgtggt gcgagtttat 720  
tttaaaccaa agcatgttaa ggcgtgggtt ccaagacctc cccggttggtg cccatacatc 780  
tatgcaagga acgtggattt tgagccacaa ggtgtcactg aatcaagaga aaagataaca 840  
ctagataggg atactcacac ccctatgcgc acatgcgggc cgttc 885

<210> 65  
<211> 882  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 65  
ggagatgtct gtgaggaagt agagagggct attgtcaggg ttgcagatac tgtcggaacgc 60  
ggtcctgcta aactgagag tgtaccagcg ctgactgcag ttgaaactgg acacacttca 120  
caagtgttac ccggggacac catgcaaacc agacatgtta aaaactttca cagcggtca 180  
gaatcatctg tggaaaattt catgtgcaga gcagcgtgtg tgtattatgt ggattaccac 240  
acacaaaatg acagtggagg tgaaaaatat gcatcttgga ttatcaacac gagacaggta 300  
gcacagctac gcaggaaaat tgagctgttc acatacacta ggttttagatg cgaaatcaca 360  
ttcgtagtca ccaccacaca gcagcaatcc acagctccca accccgacac tctctgctg 420  
acacaccaa tcatgtatgt gccccgggt ggccagtgcc caaatagtgc taccgattat 480  
tggttgcaat catccacaaa tcccagtata ttctggaccg agggtagcgc accacccaaa 540  
atgtcaatac cctttataag tgtgggaaat gcatacagca gtttttatga tgggtggtca 600  
catttcactc aaaacgggggt gtacgggttc aacactctga acaatatggg caaattatac 660  
ttcaggcacg taaatgacaa caccgtaggg ccataatgtga gcaaagcccg catttatttc 720  
aaaccaaagc atgtgcgtgc gtgggttccc aaacctccca ggctctgtga atacaacaat 780

08260" 2987E550

cgagccaacg tgaactttga accacgaggg gttaccgatg ccaggtctag tatcacggcc 840  
acaaccgaca cgatcactga gagcacaggg atgcaaacga ct 882

<210> 66  
<211> 876  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 66  
aatgatccag caactgccat agttagatcg gttgagagag tggctgatac catagcaagt 60  
ggaccacta actcagagag agtgccagca ctaaccgccc ttgaaacagg tcacacctca 120  
caggtagtcc cgagcgacac catgcaaact aggcattgtt tgaaccatca cattagatca 180  
gagtcctcta ttgaaaactt cctgagcagg tccgcctgcg tgtacatcga catgtatggg 240  
acaaaagaga atggtgacat caagcgcttc accaactgga gaataaacac acgtcaggtc 300  
gtgcagctaa ggcgcaagct ggaaatgttt acatacatta gatttgatgt tgaaatcact 360  
tttgtaatca ctagcacaca gggaacaccg actcaaaaga acaaggatac cccagttctt 420  
acacaccaa tcatgtatgt gccaccaggg ggcccaatcc ctgtatctta tgaagattat 480  
tcttggcaga cctctacaaa tctagtgtt ttctggacag aagggaatgc cccagcccgt 540  
atgtcaattc ccttcatgag cgtagggaac gcctattgta acttttacga cgggtgggtca 600  
cacttctcac aatcgggtgt gtatgggttc actacactca ataacatggg tcagttgtac 660  
tttgcacacg tgaacaagga cacccttgga ccatacaata gcacgggttcg ggtttacttc 720  
aaacccaaac atgtgaaggc atgggtaccc agaccaccgc gcctgtgcga ctacgtttac 780  
gcacataatg ttgacttcac accaaaaggg gttactgaca gcagggacaa gatcacccctg 840  
gaccgtgatg aacacgtgcc gtcagtgggtt aaccac 876

<210> 67  
<211> 870  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 67  
ggagatgatc caccgcattc gatctcaaac acggttgcaa acaccaaccc tagtgggtcca 60  
accaactcag aaaggatccc agcgctcaca gcagcggaaa ctgggtcacac ctgcgagggtg 120  
gtcccagagt ataccgtaca aactcgttgt gtgaaaaact tccacactcg atcggagtca 180  
tcaattgaga actttttgtg cagatcagct tgcgcacaca tgtcatcgta tgaggccttc 240  
ccaacaacaa cacaagacgg tacacaaagg ttccgcaatt ggacgattag tgtgaaagac 300  
atggtgcagt tgaggaggaa atgtgagatg ttcaactact taagatttga catggagggtg 360  
acttttgtga taactagtgt gatcgaaact acaaaaggga aagtaccggc accagcagtc 420  
acacaccaag taatgtacat tccaccaggg ggacctattc cagctagcgt tgaaagttat 480  
gcctggcaaa catccacca cccaagcgtg ttttggacag aagggaatgc tccccacgc 540  
atgtctatac catttatcgg cattggtaat gcctacagca tgttctatga cggatgggcc 600  
agtttcagac aatcgggtgg atatggatac agcaccctga accacatggg ccagatatcc 660  
gtaagacacg tgaatgaac catacaaac ttgatcagca cagtcaggat atatttcaag 720  
ccaagcacg ttagggcttg gattcctaga ccgcccaggg tgtgtcagta catttacaag 780

T02260-2982360-092801

gcaaattgtag actacgcagt gtcaaatact actgaaaagc gagatagtat aagatggaca 840  
ccaacaaccg gtccgtcaat gacatcccac 870

<210> 68

<211> 855

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 68

ggtgacgacg caaggactgt tagcgacaca caaaagagcc agccatctaa ctctgagcaa 60  
gtgcctgcct taacagcggg tgagactgga cacacctctc aagttgagcc cagtataca 120  
gtacagacac gacatgttgt caactcacac agtaggacag agtcgacaat tgagaatttc 180  
tttgggaggg ctgcgtgtgt gaggggtgaga gaggactcta tagggcatga tttggcagcg 240  
gacgaaacat atgatatgtg ggccattaca gtgcgagaca tgggtgcagct tcgtaggaag 300  
tgtgagatgt tcacatacat gaggtttgac ttggaagtga cgctagtcat caccagctat 360  
caagaaccag ggacaatcac caccaggat atgcccgtcc taaccacca gattatgtat 420  
gtgccgccag gagggccggg cccagccaag gctgacagtt acgcgtggca aacgtcaaca 480  
aatcccagta tattctggac cgaaggcaac gctccacctc ggatgtctat cccatacatt 540  
ggcatcggca atgcatatag cagcttttat gacgggtggg cgagcttcaa caactcgggt 600  
gtgtatggct acacaaccct gaataacatg ggtaaactgt acttcagaca cgtgaacaaa 660  
cacagcccaa aactatttaa gagcactgtg aggatataat tcaagcccaa gcacgtccag 720  
gcgtgggtcc caagaccacc gcgcttgtgc ccgtatctga ataagagggg tgtcaacttt 780  
gaagtgaac ccgttacgag caagagagac agtattaact gggtgccaca aacaaaccgc 840  
caagtgtaca atcat 855

<210> 69

<211> 876

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 69

aatgaaccta gtagtgccat tgagagagca attgtgcgcg tagcagatac tatggccagt 60  
gggcctgcaa actcagagca aatccctgcc ctaaccgctg ctgagactgg tcacacctcg 120  
caagtgggtc ccagcgacac tatgcaaacc cgccatgtat gtaactacca caccagatct 180  
gaatcatcga tcgagaactt cctatgcagg gctgcagtgt tctacatagt gagttacaaa 240  
acacagggcg acgaacaaac cgacaatac gctagttggg agatcaaacac gcggcaggtg 300  
gcacagttaa ggagaaaatt ggaattcttt acttacataa gatttgacat ggaggtaaca 360  
tttgtgatca ctggttcaca agacaccagc acacagacta acacggatac gccagtgtca 420  
acccatcaaa ttatgtatgt gcctcccggg ggtccagtac cgacatcagc cacagattac 480  
agctggcaga catctacaaa tcccagtgtg ttctggacag aagggaatgc gcctcccgt 540  
atgtccatac ccttcattag cataggcaat gcgtatgcta atttctatga tgggtgggtcg 600  
cacttttagc agtcaggggt gtatgggttac accacactca ataatatggg taccctgtat 660  
ttcaggcacg tgaacaactc gaccatcggg ccttacacca gtgcagttag gatataattc 720  
aagccaaagc acgtcaaagc gtgggtgcca cgaccgccac ggttgtgcga ttacaaacac 780

09937862 09937862

aaaaagaacg tagactttac tcccacaggt gtgaccacaa ctagagacaa gataaccttg 840  
gacaagggga ctcacgtgcc gagcgtatgg aacaca 876

<210> 70  
<211> 876  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 70  
aatgacccccg aaggtgcact taataaagca gtgggcaggg tagctgatac tatagctagt 60  
gggcccgtca atacagagca aattcctgca ttgacagcag tggagacagg gcatacatct 120  
caagtggtag ctagtgacac aatgcaaacc cgacacgtgg tcaacttcca tactagatca 180  
gagtcacgtg tacagaactt catggggaga gcgcatgtg tatatatcgc ccactatgcc 240  
acagaaaagg ctaatgatga tttggacaga tacactaact gggagatcac aactaggcag 300  
gtggcacagt tgaggcgcaa gttggagatg tttacgtata tgagatttga cctcgagatt 360  
acattcgtaa tcaccagctc ccagcgtact tccaacaggt atgcgtcaga ctcccccca 420  
ttaacacatc aaataatgta cgtgccgccg ggggggtcca ttcccaaggg ttatgaagac 480  
tttgccctggc agacgtccac caaccgaagt gtgttttgga ccgaaggtaa cgcccctcct 540  
aggatgtcaa taccattcat gagcgttggc aacgcataatt gtaactttta tgatggatgg 600  
tcccatttca gtcagagcgg tgtgtacggg tacactacat tgaacaacat ggggcgctta 660  
tatttttagac atgtaaacaa atcaacagga taccagtaa atagtgtcgc ccgcgtctat 720  
ttcaagccca agcatgtgaa ggcatgggta cctcgcgcgc cagcgttatg tccatatttg 780  
tatgctaaaa atgtcaactt tgatgtgcaa ggcgtgaccg agtcccgggg taagatcact 840  
ctcgaccgtt cgactcacia ccccggtgta accact 876

<210> 71  
<211> 876  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 71  
aatgaccctg aaggtgcgct caacaaggcg gtgggcagag tggctgatac aatagccagt 60  
gggcccgtca aactgagca aattcccga ttgacagcag tggaaacagg gcacacatct 120  
caagtagtac ctagtgatac aatgcaaact cgacacgtgg tcaacttcca caccagatca 180  
gaatcatcgt tggagaactt catgggaaga gcagcgtgtg tgtatatcgc tcattatgct 240  
acagagaagg ctaatgatga tttagacaga tacaccaact gggaggtcac aaccaggcag 300  
gtagcacagt tgaggcgtaa actggagatg ttcacgtaca tgaggtttga cctcgagatc 360  
acatttgtaa tcaccagctc ccagcgcact tcaaccaagt atgcgtcaga ttcccccca 420  
ctaacacacc agataatgta tgtaccgccg gggggccccg tccccaaggg ttatgaagat 480  
tttgccctggc agacgtccac caaccgaagt gtattttgga cggaaggtaa cgccccctcct 540  
aggatgtcga taccattcat gagcgttggg aacgcatact gcaactttta cgacggatgg 600  
tcccatttca gccagagcgg tgtgtacggg tacactacat tgaacaacat ggggcacttg 660  
tatttcagac atgtaaacaa atcaactgca taccagtta acagtgttgc ccgcgtctac 720  
ttcaagccca agcacgtaaa ggcttggggtg cctcgcgcgc cagcgttatg tccatatttg 780



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cttgatcgat	cgactcacia	ccctgtgtca	accacg			876

<210> 72  
 <211> 877  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 72						
aacgaccccg	aacatgcgtt	aaacaacgcc	attggtagag	tggcagatac	gatcgccagt	60
gggccggtga	actcggaacg	catacctgca	ctaaccgcag	tggagacagg	acacacgtct	120
caagtgggtgc	caagcgacac	catgcaaaca	aggcacgtag	tcaacatgca	tacaagatcc	180
gaatccacca	tcgaaaattt	catgggaagg	gctgcttgtg	tatacattgc	gcaatacgcc	240
actgataagg	ccagtgtatga	tctggacagg	tacaccagct	gggagatcac	tacgagacag	300
gttgcgcaat	tgaggagaaa	gctggagctg	tttacataca	tgaggatga	cttagaagtt	360
acctttgtca	ttaccagttc	ccagcgcact	tcgactacat	atgcatcaga	ctccccgcca	420
ttgacccacc	aaattatgta	tgtgcctccc	ggggggcccta	ttcccatagg	acacgaagac	480
ttcgccctggc	agacttcaac	aaaccccagt	gtcttttgga	ctgaaggaaa	tgccccacca	540
cgtatgtcca	taccattcat	gagtgtgggc	aatgcctact	gcaattttta	cgatgggtgg	600
tcacatttta	accagagtgg	ggtgtatgga	tacactacac	taaacaacat	gggtcgctta	660
tatttcaggc	atgtaaacag	atctactgcc	taccaggtta	atagtgttgc	acgtgtttac	720
tttaaaccca	aacacgtcaa	agcctgggtc	ccacgagcac	cacgattgtg	cccatacttg	780
tatgctaaga	acgtgaactt	taatgtgcaa	ggtgtgactg	actcccgaga	caagataacc	840
gtagaccgaa	ccaaccatgt	acgtatgcgc	accacag			877

<210> 73  
 <211> 876  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 73						
aacgaccccg	aacacgtggt	aaacaatgcc	gttggcagag	tggcagatac	aatcgccagc	60
gggccggtga	actcggaacg	cgtacctgca	ctaactgcag	tggagacagg	gcatacgtct	120
caagtgggtgc	caagcgatac	tatgcaaaca	agacacgtag	tcaacatgca	cacaagatct	180
gaatccacta	tcgaaaattt	catgggaagg	gctgcttgtg	tatacatcgc	acaatacgtc	240
actgacaaag	ccagtgtacga	tttggatagg	tacaccagct	gggaaatcac	cacgagacag	300
gttgcgcaat	tgaggagaaa	gttggaaatg	ttcacataca	tgaggatga	cctggaagtc	360
acctttgtta	tcaccagttc	ccagcgcacc	tcgactacat	atgcatcaga	ttccccacca	420
ttgactcatc	agatcatgta	cgtgcctccc	ggggggcccca	ttcctatagg	atacgaggac	480
ttcgccctggc	aaacatcgac	taaccctagt	gtcttttgga	ctgaaggaaa	tgccccacca	540
cgcattgtcca	ttccatttat	gagtgtgggc	aatgcctact	gcaattttta	cgatgggtgg	600
tcacacttta	gccagagtgg	ggtgtacgga	tacactacac	taaataatat	gggtcgctctg	660
tatttcaggc	atgtaaacaa	atctactgcg	taccgggtta	atagtgttgc	acgtattttac	720
ttcaaacccta	aacatgttaa	agcctgggtc	ccgcgagcac	cacgactgtg	cccataatttg	780

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tatgcaagga	acgtgaactt	taatgtgcaa	gggtgtgactg	actccccgaga	aaagataacc	840
atagaccgaa	ccaaccatgt	gcccatgcgt	aacaca			876

<210> 74  
 <211> 876  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 74						
ggggacacgg	aacatgcagt	tgagtcagct	atctccaggg	tagcagatac	cattagctca	60
ggtcctagta	acactgttgc	tataccagcg	ctcaccgagg	cagaaacggg	ccacacatcg	120
caagtcaccc	ccagcgacaa	tcttcagacg	cgccatgtta	agaactatca	ctcccgtctt	180
gagtcaacta	ttgaaaactt	cctgtgtaaa	tccggtgtg	tgcataattgc	gtcatacaac	240
gcatacgggtg	atgttggtatc	agacagtaga	tatgatagtt	gggagatcaa	catcagggaa	300
atgggtgcagt	taaggaggaa	gtgcgaaatg	ttcacctatc	tcagatttga	catggagggtg	360
acattttgtca	tcactagcaa	gcaagatcaa	gggacttcgc	tatcacaaga	catgccagtg	420
ctaacacatc	agatcatgta	cgtgccgcca	ggcggatccg	tgcccactag	cgtccagagc	480
tacgcattggc	aaacatccac	caacccgagc	gtgttttggg	cagagggcaa	tgcccctgct	540
agaatgtcca	tcccattcat	tagcataggg	aatgcataca	gcagcttcta	cgacgggttg	600
tcacatttca	cccaacaagg	tggctatggc	tataatacac	tgaacaagat	gggtaagttg	660
tttgtaaggc	atgtgaataa	agaaacacca	acccatgtga	cgagcacgat	acgtgtatat	720
tttaaaccaa	agcatgttag	agcgtgggtg	ccaaggccac	ctagattgtg	cccgtacatc	780
aataaagcgg	actgttaactt	cgctgttaca	ccactcacca	aacagcgggt	aggaatcaac	840
gatgtcccgc	ggcccagcca	cacattacat	actcat			876

<210> 75  
 <211> 875  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 75						
aacgacccccg	caaccgctat	tgaaggagca	gtccggcgag	tggcggacac	gatccagagc	60
ggaccgagca	attcggagcg	ggttccagcg	ttaacggccg	ttgagacagg	tcacacagca	120
cagggtaccc	cgagtgtatc	aatgcaaact	agacatgtac	acaacttcca	caccagatcg	180
gagtctagca	tcgagaactt	cctcagtaga	gcagcttgtg	tgtacatagg	gaaatatagt	240
agcaatgcaa	caacacaaga	tgaacaatac	atgtcatgga	caattaatac	cagacagatg	300
gtgcagctga	gacgcaaatt	cgaaatgttc	acctacctac	gcttcgacgt	agaagtcact	360
tttataataa	catcgcacca	agatcaaggg	acacagttca	accaggatgc	gcccgtaatg	420
tgccacccaaa	tcattgtatg	gccacctggt	ggcccgggtg	ctaagagtgt	tgatgacttc	480
acatggcaaaa	cctctactaa	ccctagtgtc	ttttgggtcag	aaggcaatgc	accaccgaga	540
atgaccattc	cattcattag	tatagggaac	gcctacagca	gcttttatga	tggctgggtca	600
cacttctctc	aaaatggggg	ttacgggttt	aatgcactca	ataacatggg	taaactgtat	660
gtgagacaag	tgaacctaaa	agcccctatg	ccagtcagca	gtacagttag	gatctatttc	720
aaacccaagc	atatcaaagc	ttgggtaccc	agaccaccgc	gtctatgtaa	gtacctgaag	780

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tctgggagtg tcaattttga gccactgat ttgacagaaa aacggaaatc cagaaagtac 840  
atccccaaaaa ctttcagacc agatgtgaga accat 875

<210> 76  
<211> 843  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 76  
ggatgatgtgc atgatgcagt tgtgggtgcg atgtcgcgcg tcgctgatac agtagcaagt 60  
ggccctgcaa actctgagag cgtgcctgct ctcactgagg tagaaactgg acacacgtca 120  
cagggtgacac caagtgtatc aatgcagacc agacacgtac acaacttcca cacacgggtcc 180  
gaatcggtcaa tcgagaactt ctttaagccgc tctgcatgtg tctattatgc aacgtacaaa 240  
acaacagcca gcagaccga agaccaatc gttagggtgg ccatctcata ccgccagggtg 300  
gccccactgc gcaggaaaat ggaaatgttc acctacctgc gctacgatgt ggagggtcact 360  
tttgtgatta caagttctca ggacccatcg accaacgtaa gccaggatgc tctgtactc 420  
acacatcagt taatgtacgt accccccggg ggtccagtgc ccaaaaattc aagagactat 480  
gcatggcaaa catccacca cccgagtgtg ttctggaccg aggggaacgc accaccaagg 540  
atatccatcc cctttatcag tgtgggcaac gcatacagtt gcttttatga tggatgggtcc 600  
cactactcac agacgggggt gtatggttac aacacctta acgacatggg ccaattatct 660  
gtcaggcacg tgaatgaggc aagcccgggt ggggtgtcaa gtgtagttag gatttacttc 720  
aaacccaaac atgtgaaggc atgggtccc agaccaccac ggttgtgcca atatgttaac 780  
gcagcaacgg tgaacttcac tctgaagggt gtcactaagg cacgtactga tctcatgaca 840  
aca 843

<210> 77  
<211> 915  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 77  
ggaatagaag aaactattga cacagtgatc accaacgctt tacaactgtc tcagcccaaa 60  
ccgcagaaac aactcactgc tcaatccacc gcctcatcca gcggagtcaa ttcacaagaa 120  
gtgccagcat tgactgctgt ggagacggga gcttctgggtc aagccatacc cagcgacgtg 180  
attgagacca gacatgtcgt caattacaaa actagatctg aatcaaccct tgagtcattc 240  
tttggttagat cagcatgcgt aaccatactg gaagtagaga acttcaatgc cactaccgaa 300  
tcggacaaga aaaagcaatt caccacctgg ccaatcacat acaccaacac agtccagttg 360  
cgcaggaaat tggaattctt tacatactcc agatttgatc tggaaatgac ttttgtcata 420  
actgagaggt accacacaag taatacagga catgctagaa atcaagtgt ccaataatg 480  
tacataccac cgggtgcgcc aaggcccaca gcacgggatg attacacctg gcaaagttca 540  
tccaatccat cagtgtttta cacatatggt agcgcgcctc ccagaatgtc tatcccatat 600  
gttggcattg ccaatgcata ctacacttt tatgacgggt ttgcccagat tcccctgaaa 660  
gatgatacaa ctgactccgg tgacacttt tatggattgg tcaccatcaa tgactttgga 720  
acattggctg tgagggtggt gaatgagttc aaccctgcaa ggataacatc aaagggtcaga 780

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gtttatatga	agcccaaaca	tgtgaggtgt	tggtgtccta	ggccaccgcg	cgcagtgccc	840
tatcgtgggtg	aagggggtga	tttcaaacaa	gattcaatca	cgccaataac	agcagtcacc	900
aatattaata	ccttc					915

<210> 78  
 <211> 936  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 78						
tcaaaccact	tacatggagc	agaggcagcc	tatcaggtgg	agagtatcat	caaaacagca	60
actgatactg	tgaagagtga	gattaacgcc	gaacttggtg	tggtccctag	tctaaatgca	120
gttgaaactg	gtgcaacttc	caacactgaa	ccagaagaag	ccatacaaac	tcgcacagta	180
ataaatcagc	atgggtgtgc	ggagacgtta	gtggagaatt	ttcttggtag	ggcagcccta	240
gtgtcaaaga	aaagttttga	atacaagaat	catgcctcat	ccagcgcagg	gacacacaaa	300
aactttttta	aatggacaat	taatactaag	tcttttgtcc	agttaagaag	aaagctggaa	360
ttattcacat	accttaggtt	tgatgctgaa	atcaccatac	tcacaactgt	ggcagtaaat	420
ggtaataatg	acagcacata	catgggtctc	cctgacttga	cactccaagc	aatgtttgta	480
ccaactggtg	ctcttactcc	aaaggagcag	gattcatttc	attggcaatc	aggcagtaat	540
gctagtgtgt	tctttaaaat	ttctgatccc	ccagctagaa	tgactatacc	ttttatgtgc	600
atcaactcag	catattcagt	tttttatgat	ggctttgctg	gatttgagaa	aaatgggtcta	660
tatggaataa	accagctga	cactattggc	aacttggtg	tcagaatagt	gaatgaacat	720
caaccagttg	gttttacagt	gaccgttagg	gtttacatga	agcctaaaca	tataaaagca	780
tgggctccac	gaccaccgcg	aaccatgcca	tacatgagca	ttgctaattgc	aaattacaaa	840
ggtagagata	cagcaccaaa	cacacttaat	gccataattg	gtaatagagc	gagtgtcaca	900
actatgcctc	acaacatagt	aaccaccggt	cggggt			936

<210> 79  
 <211> 861  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence; Note =  
 synthetic construct

<400> 79						
aatgaccagc	acaatggggc	gatcgttgcc	aacacaacag	ctagcggacc	ttctaattcg	60
gaaagcatat	cggcacttac	tgcggttgag	actggccaca	catcgcaggt	tgtccctagc	120
gacaccatcc	agacaagaca	tgtgaaaaac	taccactcgc	gttcagagtc	caccatagag	180
aacttcctgt	gtagatctgc	ctgtgtgtac	tacaccacgt	acaacactca	gggagagcaa	240
gcacatgata	aatacgcaag	ttggccaatc	acgactagaa	aagttgcccc	actgagcagg	300
aagctggagt	tctttacctt	cctgcggttt	gatctcgaga	tcacgttcgt	gatcacgagc	360
gcccagatca	catccacgaa	ccaaaaccag	gatgccccag	tactcacaca	tcaggtgatg	420
tatgtacccc	cagggggggt	ggtaccgcgc	agtgtggatg	actatagttg	gcagacttcc	480
accaatccca	gcactctctg	gacagaaggg	aacgcacctc	ctcgtatgtc	aataccattc	540
attagtgtgg	gcaacgccta	cagcagcttt	tacgacgggt	ggtcacactt	tgaacaaacc	600
ggggtatatg	gattcaatac	ccttaataat	atggggactt	tgtacgccag	gcacgttaac	660

T03250" 2984660

ggtgctagtc cggggccagt caagagcacc attaggatat atatgaaacc taaacatgtg 720  
aaagcgtgga tacctaggcc cccacgggtg tgcgactatg tgaaatctgg caacgtcaac 780  
tttgaaccaa aaggagtcac cgagagcaga ccatctataa agttagaaaa gacctcaagt 840  
gggcacaggc tgacaacca c 861

<210> 80

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 80

Met Tyr Val Pro Pro Gly Gly

1

5

<210> 81

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> VARIANT

<222> (0)...(0)

<223> Xaa = any amino acid

<400> 81

Met Tyr Xaa Pro Xaa Gly Ala

1

5

<210> 82

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> VARIANT

<222> (0)...(0)

<223> Xaa = any amino acid

<400> 82

Phe Gly Xaa Gln Ser Gly Ala

1

5

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<210> 83  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> VARIANT  
<222> (0)...(0)  
<223> Xaa = any amino acid

<400> 83  
Thr Ala Xaa Glu Thr Gly His  
1 5

<210> 84  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<221> VARIANT  
<222> (0)...(0)  
<223> Xaa = any amino acid

<400> 84  
Thr Ala Val Glu Thr Gly Xaa  
1 5

<210> 85  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence; Note =  
synthetic construct

<400> 85  
Gln Ala Ala Glu Thr Gly Ala  
1 5

<210> 86  
<211> 7  
<212> PRT  
<213> Artificial Sequence

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T08260 2984E660

&lt;220&gt;

<223> Description of Artificial Sequence; Note =  
synthetic construct

&lt;221&gt; VARIANT

&lt;222&gt; (0)...(0)

&lt;223&gt; Xaa = any amino acid

&lt;400&gt; 86

Met Xaa Xaa Pro Pro Gly Xaa

1

5

T08260" 298/2000